

PHENIX J/ψ v_2 and R_{AA} results as a function of p_T at forward rapidity for Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV

Catherine Silvestre for the PHENIX Collaboration

The PHENIX experiment has shown that J/ψ s are suppressed in Au+Au collision at $\sqrt{s_{NN}} = 200$ GeV, and that the suppression is larger at forward than at mid rapidity. Interactions with cold nuclear matter may not completely explain these effects. In 2007, PHENIX collected three times more Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV than ever published. This allows to measure the R_{AA} to higher transverse momentum values. Moreover, the addition of a new reaction plane detector allows the analysis of the J/ψ collective behavior in the azimuthal plane. Since direct J/ψ are sensitive to early stages of the collision, measuring J/ψ azimuthal anisotropies should give a hint on the amount of recombination at play in the expanding matter. Results of the J/ψ R_{AA} and elliptic flow as a function of transverse momentum at forward rapidity will be shown, together with details on both analysis.